

CLAIMS

1. A microelectronic lid, comprising:
 - a lid material having a shape and a peripheral edge surrounding the shape;
 - 5 a surface surrounded by the peripheral edge; and
 - a rail which extends along only a portion of the peripheral edge and which is elevationally raised relative to the surface.
2. The microelectronic lid of claim 1 wherein the shape is a rectangular shape defining
10 four peripheral sides of the peripheral edge, and wherein the rail extends along two of the peripheral sides, while at least a predominate portion of the remaining two sides does not have the rail extending there-along.
3. The microelectronic lid of claim 2 wherein the two of the peripheral sides along which
15 the rail extends are in opposing relation to one another.
4. The microelectronic lid of claim 2 wherein the rectangular shape is a square shape.
5. The microelectronic lid of claim 1 incorporated within a microelectronic package, the
20 package comprising:
 - a base;
 - a chip supported by the base; and
 - the microelectronic lid over the chip; the chip accordingly being packaged between the microelectronic lid and the base.
- 25 6. The microelectronic package of claim 5 wherein the microelectronic lid has a thermal conductivity of at least about 100 watts/meter-Kelvin; and further comprising a thermally conductive connection between the microelectronic lid and the chip.
- 30 7. The microelectronic lid of claim 6 wherein the microelectronic lid has a thermal conductivity of at least about 150 watts/meter-Kelvin.
8. The microelectronic lid of claim 6 wherein the microelectronic lid has a thermal
conductivity of at least about 200 watts/meter-Kelvin.
- 35 9. The microelectronic lid of claim 6 wherein the microelectronic lid comprises copper.

10. The microelectronic lid of claim 6 wherein the microelectronic lid comprises aluminum.
- 5 11. The microelectronic lid of claim 1 comprising copper.
12. The microelectronic lid of claim 1 consisting essentially of copper.
13. The microelectronic lid of claim 1 consisting of copper.
- 10 14. The microelectronic lid of claim 1 consisting essentially of metal-plated copper.
15. The microelectronic lid of claim 1 consisting of metal-plated copper.
16. The microelectronic lid of claim 1 consisting essentially of nickel-plated copper.
- 15 17. The microelectronic lid of claim 1 consisting of nickel-plated copper.
18. The microelectronic lid of claim 1 comprising aluminum.
- 20 19. The microelectronic lid of claim 1 consisting essentially of aluminum.
20. The microelectronic lid of claim 1 consisting of aluminum.
21. The microelectronic lid of claim 1 consisting essentially of metal-plated aluminum.
- 25 22. The microelectronic lid of claim 1 consisting of metal-plated aluminum.
23. The microelectronic lid of claim 1 consisting essentially of nickel-plated aluminum.
- 30 24. The microelectronic lid of claim 1 consisting of nickel-plated aluminum.
25. A method of forming a plurality of microelectronic lids, comprising:
 - providing a bar of lid stock;
 - forming a groove along a side of the bar; and
 - 35 after forming the groove, cutting the bar into a plurality of separated microelectronic lids.

26. The method of claim 25 wherein the bar comprises aluminum.

27. The method of claim 25 wherein the bar comprises copper.

5 28. The method of claim 25 wherein the bar comprises a first metallic material, and further comprising electroplating the separated microelectronic lids with a second metallic material.

29. The method of claim 25 wherein the bar comprises aluminum or copper, and further comprising electroplating the separated microelectronic lids with nickel.

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30. The method of claim 25 further comprising incorporating at least one of the microelectronic lids into a microelectronic package, the incorporating comprising:
providing a chip supported by a base; and
adhering the microelectronic lid to the base and over the chip; the chip accordingly
15 being packaged between the microelectronic lid and the base.

31. A method of forming a plurality of microelectronic lids, comprising:
extruding a lid stock material into a shape of a bar having a side, and a groove
extending along the side; and
20 after extruding the material, cutting the bar into a plurality of separated microelectronic lids.

32. The method of claim 31 wherein the lid stock material comprises aluminum.

25 33. The method of claim 31 wherein the lid stock material comprises copper.

34. The method of claim 31 wherein the lid stock material comprises a first metallic material, and further comprising electroplating the separated microelectronic lids with a second metallic material.

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35. The method of claim 31 wherein the lid stock material comprises aluminum or copper, and further comprising electroplating the separated microelectronic lids with nickel.

36. The method of claim 31 further comprising incorporating at least one of the microelectronic lids into a microelectronic package, the incorporating comprising:
- providing a chip supported by a base; and
 - adhering the microelectronic lid to the base and over the chip; the chip accordingly
- 5 being packaged between the microelectronic lid and the base.